ABSTRACT

The present invention provides compound protein molecules for inducing cytotoxic cell-mediated immune response in a mammal against a pathogenic cell displaying an antigen on its outer surface. In a preferred embodiment, the compound protein molecule comprises in sequence: a foreign class I MHC molecule; a linking (Fab) antibody fragment; an alpha-helix shaped chain linker; and a (Fab) fragment of an antibody specific against the antigen displayed by the pathogenic cell. In another preferred embodiment, the compound protein molecule comprises in sequence: a foreign class I MHC molecule; a linking (Fab) antibody fragment; an alpha-helix shaped chain linker; a (Fab'2) fragment of an antibody specific against the antigen displayed by the pathogenic cell; an alpha-helix shaped chain linker; a linking (Fab) antibody fragment; and a foreign class I MHC molecule. Methods for inducing an immune response using these compound protein molecules are also disclosed.